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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/964,232	09/26/2001	Timothy E. Grib	HO-P02393US0	1841

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EXAMINER

SHIN, KYUNG H

ART UNIT	PAPER NUMBER
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2143

DATE MAILED: 01/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center">Office Action Summary</p>	<p>Application No.</p> <p>09/964,232</p>	<p>Applicant(s)</p> <p>GRIB, TIMOTHY E.</p>	
	<p>Examiner</p> <p>Kyung H Shin</p>	<p>Art Unit</p> <p>2143</p>	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>7/2/02, 3/17/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responding to application papers filed 9/26/2001
2. Claims 1 - 29 are pending. Independent claims are 1, 16, 21.

Claim Rejection - 35 USC § 102

3. The following is a quotation of 35 U.S.C. 102(e) which forms the basis for all obviousness rejections set forth in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. **Claims 1 - 9, 13, 15 - 29 are rejected under 35 U.S.C. 102(e) as being unpatentable over Mayton et al. (US Patent No. 6,763,380).**

Regarding Claims 1, 16, Mayton discloses a method performed by one or more components in a network comprising a plurality of paths between a first device and a second device, the method comprising:

- a) conducting a first performance test of a first type over a first path of the plurality of paths between the first and second devices; (see col. 3, line 66 - col. 4, line 5: network performance measurements for multiple routings (paths) between two network devices)

- b) conducting a second performance test of the first type over a second path of the plurality of paths between the first and second devices; (see col. 4, lines 5-9: network performance for a second routing (path) between the two network devices)
- c) wherein the first and the second performance tests are performed simultaneously or within a close time proximity. (see col. 3, lines 25-32: performance measurements are generated on a repeated periodic basis)

Regarding Claims 2, 17, Mayton discloses the method of claims 1, 16, wherein the first performance test produces a first set of results;

- a) wherein the second performance test produces a second set of results; (see col. 3, lines 25-32: results are generated for multiple (first and second network devices) over multiple routings (paths)) and
- b) further comprising presenting a service level performance comparison based on the first and second sets of results. (see col. 3, lines 40-46: performance factors (service level) such as poor performance from latency or communication outages)

Regarding Claim 3, Mayton discloses the method of claim 2, wherein the first performance test includes a plurality of first individual performance tests performed over an extended time duration; and the second performance test includes a plurality of second individual performance tests performed over the extended time duration. (see col. 3, lines 22-32; col. 3, lines 58-65: perform periodic repeated tests over a multitude

of routings (paths) between two network devices over an extended time period)

Regarding Claim 4, Mayton discloses the method of claim 3, wherein each of the pluralities of first and second individual performance tests are performed at roughly periodic intervals over the extended time duration. (see col. 3, lines 25-32: tests are performed at periodic intervals)

Regarding Claims 5, 18, Mayton discloses the method of claims 1, 16, wherein the first path transverses a first access network, a first transport network, and a second access network; and the second path transverses the first access network, a second transport network, and the second access network. (see col. 8, lines 57-63: multiple transport protocols (TCP and RTP) utilized in generating performance test data)

Regarding Claims 6, 19, 24, 27, Mayton discloses the method of claims 1, 16, 23, further comprising receiving a scheduling request representing the first and second performance tests. (see col. 3, lines 16-22: perform tests based on a schedule)

Regarding Claim 7, Mayton discloses the method of claim 6, wherein the scheduling request is received by a scheduling system; and the scheduling system communicates a first indication of the request to the first device. (see col. 11, lines 34-40: test scheduler communicates schedule information to endpoint nodes (first and second network devices))

Regarding Claim 8, Mayton discloses the method of claim 7, wherein the scheduling system further communicated a second indication of the request to the second device. (see col. 11, lines 34-40: test scheduler communicates schedule information to endpoint nodes (first and second network devices))

Regarding Claims 9, 20, Mayton discloses the method of claims 6, 19, further comprising scheduling the first and second performance tests based on the scheduling request and a random time component. (see col. 14, lines 49-52; col. 8, lines 52-57: tests are performed at random based on exception events)

Regarding Claim 13, Mayton discloses the method of claim 6, further comprising determining whether a number of scheduled tests exceeds a first threshold number for the first device or exceeds a second threshold number for the second device. (see col. 6, line 66 - col. 7, line 3: threshold values are utilized)

Regarding Claim 15, Mayton discloses a computer readable medium containing computer executable instructions for performing the method of claim 1. (see col. 5, lines 6-18: performance test system can be implemented as computer program product)

Regarding Claim 21, Mayton discloses a network comprising:

- a) a first device coupled to a first access network; a first access network coupled to a first and a second transport networks; (see col. 8, lines 57-63: multiple transport protocols (TCP and RTP) utilized in performance test communications)
- b) a second access network coupled to the first and the second transport networks; (see col. 8, lines 57-63: multiple transport protocols (TCP and RTP) utilized in performance test communications) and
- c) a second device coupled to the second access network; wherein a performance test is conducted between the first device and the second device over each of the first and second transport networks simultaneously or within a close time proximity. (see col. 3, line 66 - col. 4, line 5: network performance measurements for multiple paths (multiple transport paths) between two network devices)

Regarding Claim 22, Mayton discloses the network of claim 21, wherein the first device is coupled to a first router, wherein the first router selectively routes performance testing packets received from the first device over a first path to the first transport network and a second path to the second transport network. (see col. 8, lines 57-63: communications implemented utilizing multiple transport protocols (TCP and RTP))

Regarding Claim 23, Mayton discloses the network of claim 21, further comprising a performance test scheduler. (see col. 11, lines 34-40: test scheduler coordinates performance testing)

Regarding Claim 25, Mayton discloses the network of claim 24, further comprising a results collector for receiving a set of results associated with the performance test. (see col. 6, lines 6-12; col. 6, lines 21-24: performance data stored)

Regarding Claim 26, Mayton discloses the network of claim 25, wherein the results collector transmits at least a subset of the set of results to the client device. (see col. 8, lines 32-35: endpoint nodes (client: network devices) analyze performance data)

Regarding Claim 28, Mayton discloses the network of claim 27, wherein the performance test scheduler communicates a second scheduling instruction associated with the performance test to the second device. (see col. 3, lines 16-22: scheduling information transmitted to endpoint nodes (first and second network devices))

Regarding Claim 29, Mayton discloses the network of claim 28, wherein the second device includes a test mode; and wherein the second device enters the test mode in response to receiving the second scheduling instruction. (see col. 3, lines 16-22: second network devices used in generation of performance data)

5. Claims 10, 11, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mayton et al. in view of Silva (US Patent No. 6,360,268).

Regarding Claim 10, Mayton discloses a performance test scheduler between a first and second network device. (see Mayton col. 3, line 66 - col. 4, line 9) Mayton does not disclose the capability to determined whether the scheduling request is authorized. However, Silva discloses the method of claim 6, further comprising determining whether the scheduling request is authorized. (see Silva col. 7, lines 10-14: determine if user has permission to perform test)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Mayton to determine whether a scheduling request was authorized as taught by Silva. One of ordinary skill in the art would be motivated to employ Silva in order to maximize efficiency for test scheduling in the generation of network communication performance metrics. (see Silva col. 1, lines 44-48: “ ... *maximize efficiency in the handling of test scheduling and test execution ... automate ... testing by using a server to manage test machines and to allocate test packages ... in accordance with a schedule ...* ”)

Regarding Claim 11, Mayton discloses a performance test scheduler between a first and second network device. Mayton does not disclose the capability to determined whether the scheduling request is not authorized. However, Silva discloses the method of claim 10, further comprising indicating that the scheduling request is not authorized. (see Silva col. 7, lines 10-14; col. 12, lines 38-47: determine if user has permission to perform test)

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Mayton to indicate whether a scheduling request was not authorized as taught by Silva. One of ordinary skill in the art would be motivated to employ Silva in order to maximize efficiency for test scheduling in the generation of network communication performance metrics. (see Silva col. 1, lines 44-48)

Regarding Claim 14, Mayton discloses a performance test scheduler between a first and second network device. Mayton does not disclose the capability to indicate a failed scheduling request. However, Silva discloses the method of claim 13, further comprising indicating a failed scheduling request. (see Silva col. 7, lines 10-14; col. 12, lines 38-47: determine if user has permission to perform test)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Mayton to indicate a failed scheduling request as taught by Silva. One of ordinary skill in the art would be motivated to employ Silva in order to maximize efficiency for test scheduling in the generation of network communication performance metrics. (see Silva col. 1, lines 44-48)

6. Claims 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mayton et al. (US Patent No. 6,763,380) in view of Zhuo (US Patent No. 20030036865).

Regarding Claim 12, Mayton discloses the method of claim 6, further comprising determining whether the scheduling request conflicts with a second scheduling request.

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(see Zhuo paragraph [0063], lines 14-27: test parameters for scheduling request in conflict)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Mayton to determine test scheduling conflicts as taught by Zhuo. One of ordinary skill in the art would be motivated to employ Zhuo in order to optimize the efficient coordination for test scheduling in the generation of network communications performance metrics. (see Zhuo paragraph [0007], lines 9-11: “... *methods and systems for timely and efficient coordination and conduct of remote equipment tests would be desirable ...*”)

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyung H Shin whose telephone number is (571) 272-3920. The examiner can normally be reached on 9 am - 7 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

K H S

Kyung H Shin
Patent Examiner
Art Unit 2143

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Dec. 21, 2004


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